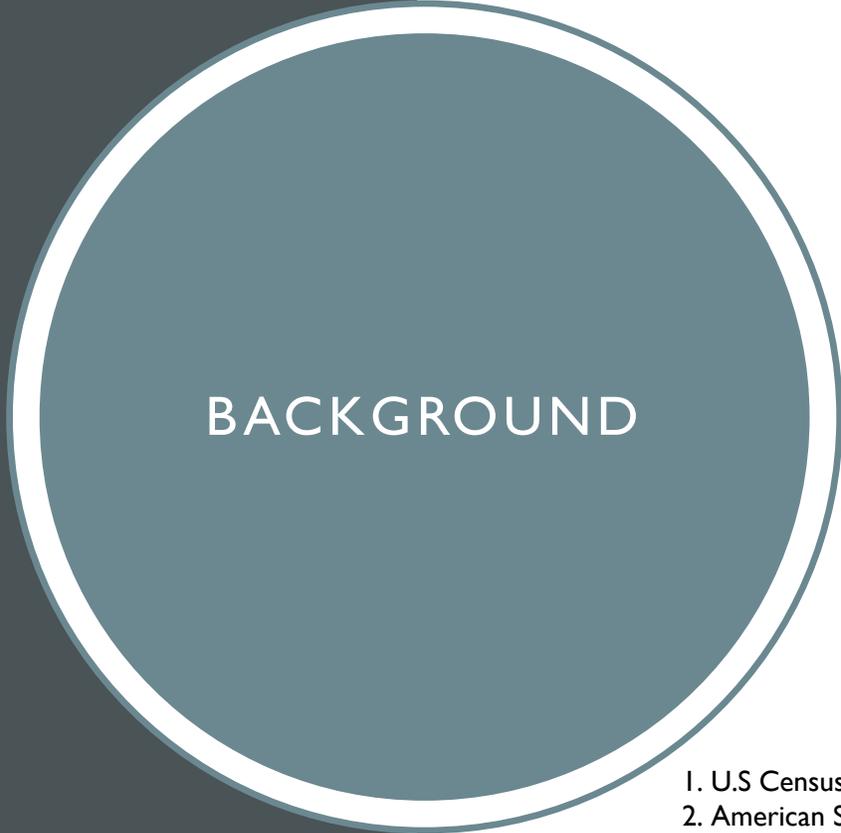


# IMPORTANCE OF PROVIDING LANGUAGE CONCORDANT AUDIOLOGICAL CARE

**Lindee Alvarez, BA**

## DISCLOSURES

- Member of the Audiology En Español group
- Graduate assistant at the University of Texas at Dallas



## BACKGROUND

- 43.8 million Spanish speakers<sup>1</sup>
- 13,240 audiologists nationwide<sup>3</sup>
- 2.8% of audiologists are bilingual<sup>2,3</sup>
- 1 audiologist per 25,034 people<sup>1,3</sup>
- **1 bilingual audiologist per 117,295 people<sup>1,2</sup>**

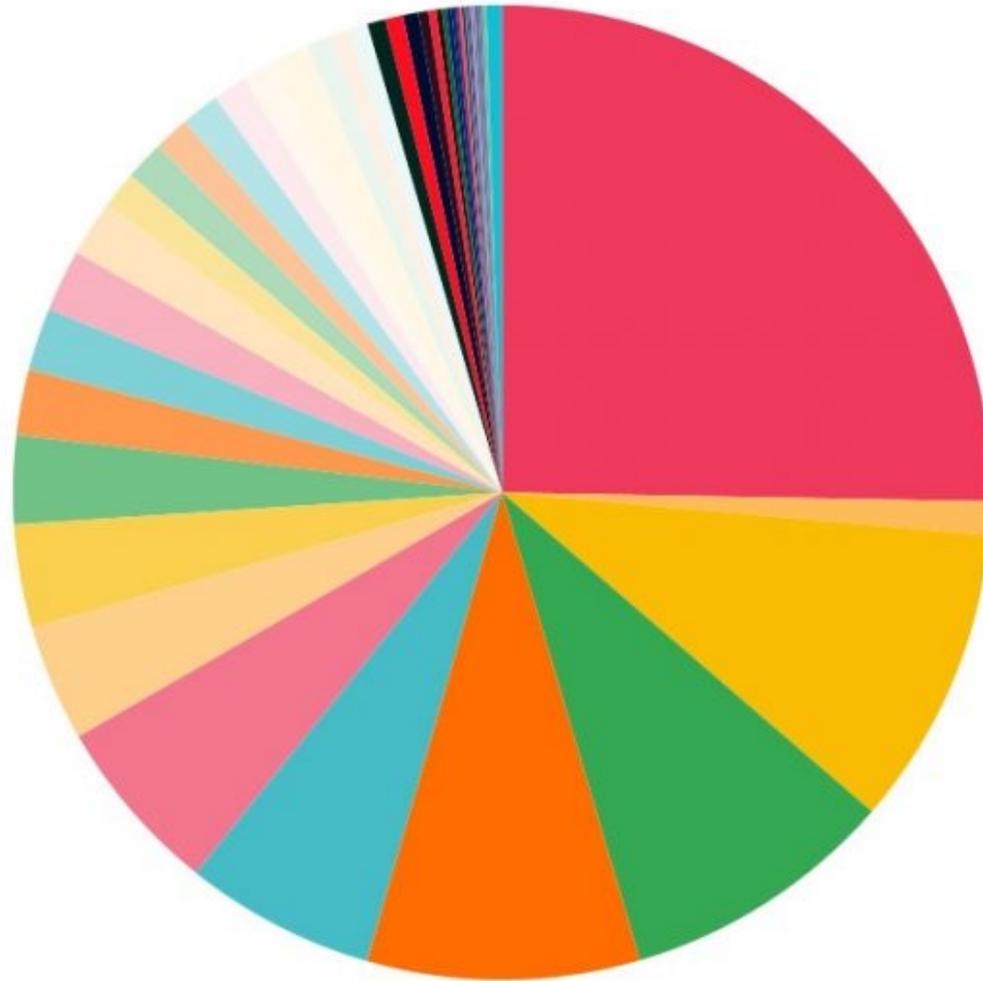
1. U.S Census Bureau (2020). United States. Retrieved from <https://data.census.gov/cedsci/profile?g=0100000US>.

2. American Speech-Language-Hearing Association. 2021 Demographic profile of ASHA members providing multilingual services. [www.asha.org](http://www.asha.org).

3. US Bureau of Labor and Statistics. Retrieved 07, June, 2022. *Occupational Employments and Wages, March 2021*. (2021). U.S. Bureau of Labor Statistics. Retrieved 2022, from <https://www.bls.gov/oes/current/oes291181.htm#st>

## (All) Spanish Speakers by Country

- Mexico
- United States
- Colombia
- Spain
- Argentina
- Venezuela
- Peru
- Chile
- Ecuador
- Guatemala
- Cuba
- Dominican Republic
- 63 more



PREVALENCE OF  
HL IN THE  
LATINO  
POPULATION

- 15% of Americans 18 and older have hearing loss<sup>1</sup>
- 15.1% of Hispanic/Latino individuals have hearing loss<sup>1</sup>

1. Cruickshanks KJ, Dhar S, Dinces E, et al. Hearing Impairment Prevalence and Associated Risk Factors in the Hispanic Community Health Study/Study of Latinos. *JAMA Otolaryngol Head Neck Surg.* 2015;141(7):641–648. doi:10.1001/jamaoto.2015.0889

# LANGUAGE CONCORDANT CARE

- The ability of the patient and provider to speak the same non-English language <sup>1,2</sup>

1.. Ngo-Metzger, Q., Sorkin, D. H., Phillips, R. S., Greenfield, S., Massagli, M. P., Clarridge, B., & Kaplan, S. H. (2007). Providing high-quality care for limited english proficient patients: The importance of language concordance and interpreter use. *Journal of General Internal Medicine : JGIM*, 22(2), 324–330. <https://doi.org/10.1007/s11606-007-0340-z>

2. Molina, R. L., & Kasper, J. (2019). The power of language-concordant care: A call to action for medical schools. *BMC Medical Education*, 19(1), 378–378. <https://doi.org/10.1186/s12909-019-1807->

# ENGLISH VS SPANISH

# English

- 10+ phonemic vowels

i: sheep	ɪ ship	ʊ good	u: shoot
e bed	ə teacher	ɜ: bird	ɔ: door
æ cat	ʌ up	ɑ: far	ɒ on

# Spanish

- 5 phonemic vowels

A E I O U

arcoiris      elefante      iglú      oveja      uvas

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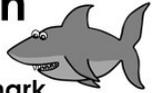
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## Spanish Early Vowels Chart

# English

- 30+ onset consonant clusters

## Consonant Blends & Digraphs

<b>ch</b> chin 	<b>sh</b> shark 	<b>th</b> thumb 	<b>wh</b> whistle 
<b>bl</b> blueberry 	<b>cl</b> clown 	<b>fl</b> flower 	<b>gl</b> glue 
<b>pl</b> plane 	<b>sl</b> slide 	<b>sc</b> scarf 	<b>sk</b> skunk 
<b>sm</b> smoke 	<b>sn</b> snail 	<b>sp</b> spoon 	<b>st</b> star 
<b>sw</b> swan 	<b>br</b> broccoli 	<b>cr</b> crab 	<b>dr</b> dress 
<b>fr</b> frog 	<b>gr</b> grapes 	<b>pr</b> pretzel 	<b>tr</b> truck 
<b>scr</b> scream 	<b>spl</b> splatter 	<b>spr</b> sprinkle 	<b>str</b> strike 

# Spanish

- 12 onset consonant clusters

<b>bl</b>  blusa	<b>br</b>  brocha	<b>dr</b>  dromedario
<b>cl</b>  clavo	<b>cr</b>  cruz	<b>pr</b>  primero
<b>fl</b>  flor	<b>fr</b>  fresa	<b>pl</b>  pluma
<b>gl</b>  globo	<b>gr</b>  grapadora	<b>tr</b>  trueno

# English

- 28.9% open syllable

**Open Syllable Words**

Nonsense Syllables	1 Syllable Words	2 Syllable Words	3 Syllable Words
ba	ply	ago	dinosaur
po	me	over	funeral
se	dry	human	musician
gre	we	protect	iodine
vi	she	music	piano
hu	hi	bacon	potato
ye	so	unit	equator
fo	why	solo	Iowa
re	l	evil	radio
ki	go	razor	relation
cli	be	zebra	violin
spre	yo	polo	pioneer
fe	sly	rodent	rodeo
ra	try	vital	volcano
du	no	poker	tomato
ca	he	cargo	utilize

LiteracyLearn.com

# Spanish

- 71.8% open syllable

**Lista de palabras**  
silabas abiertas

carro jarra mano iglú  
gato nube globo  
llave boca sopa  
queso caja rana zorro

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## CONSIDERATIONS FOR CREATING SPANISH WORD LISTS

- Lists cannot be directly adapted from English
- Monosyllables are infrequent in Spanish
- Words must be familiar to the listener
- Average difficulty

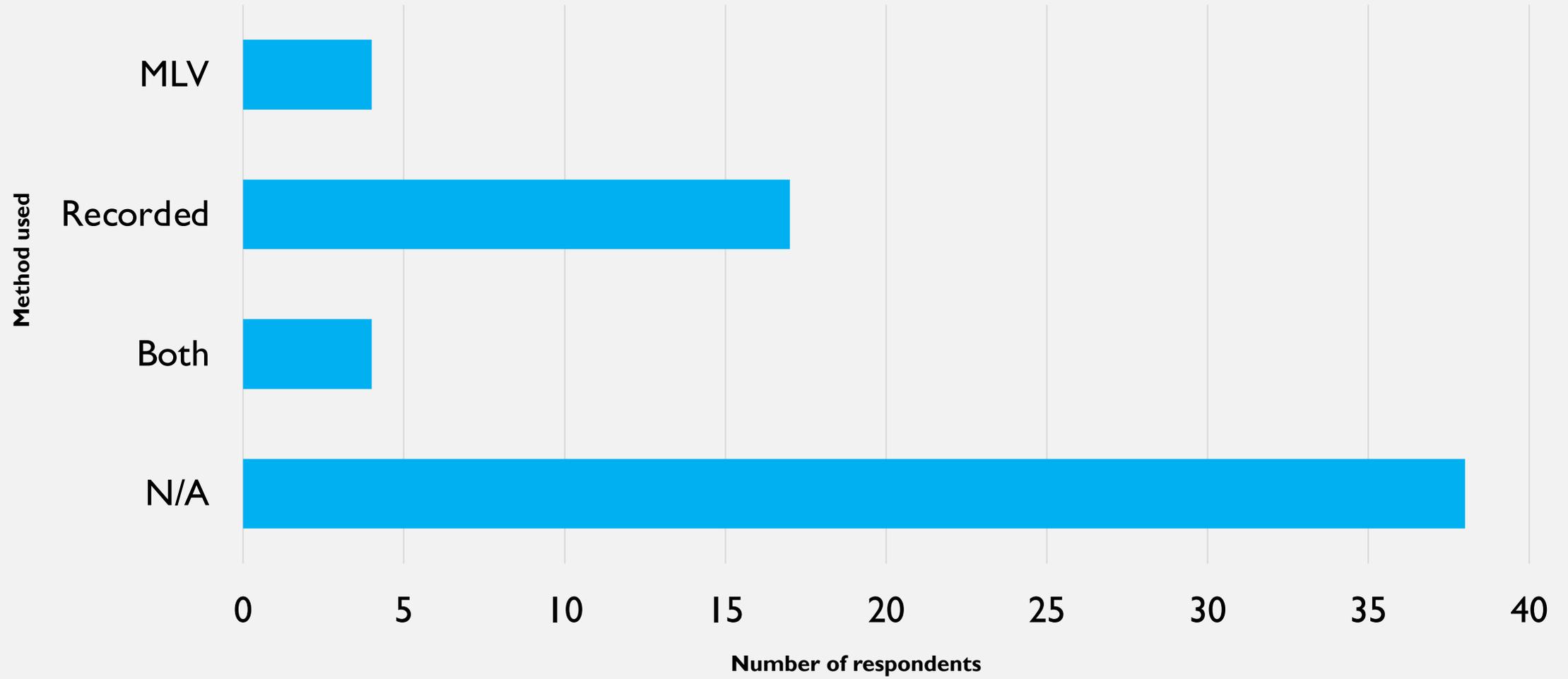
## AVAILABILITY OF SPANISH SPEECH ASSESSMENTS

- AZ Bio
  - <http://www.auditorypotential.com/purchase.html>
- Trisyllables for SRT
- Bisyllables Word Recognition lists
- Monosyllable Word Recognition lists
  - <https://auditec.com/2015/09/30/spanish-auditory-test-cd/>

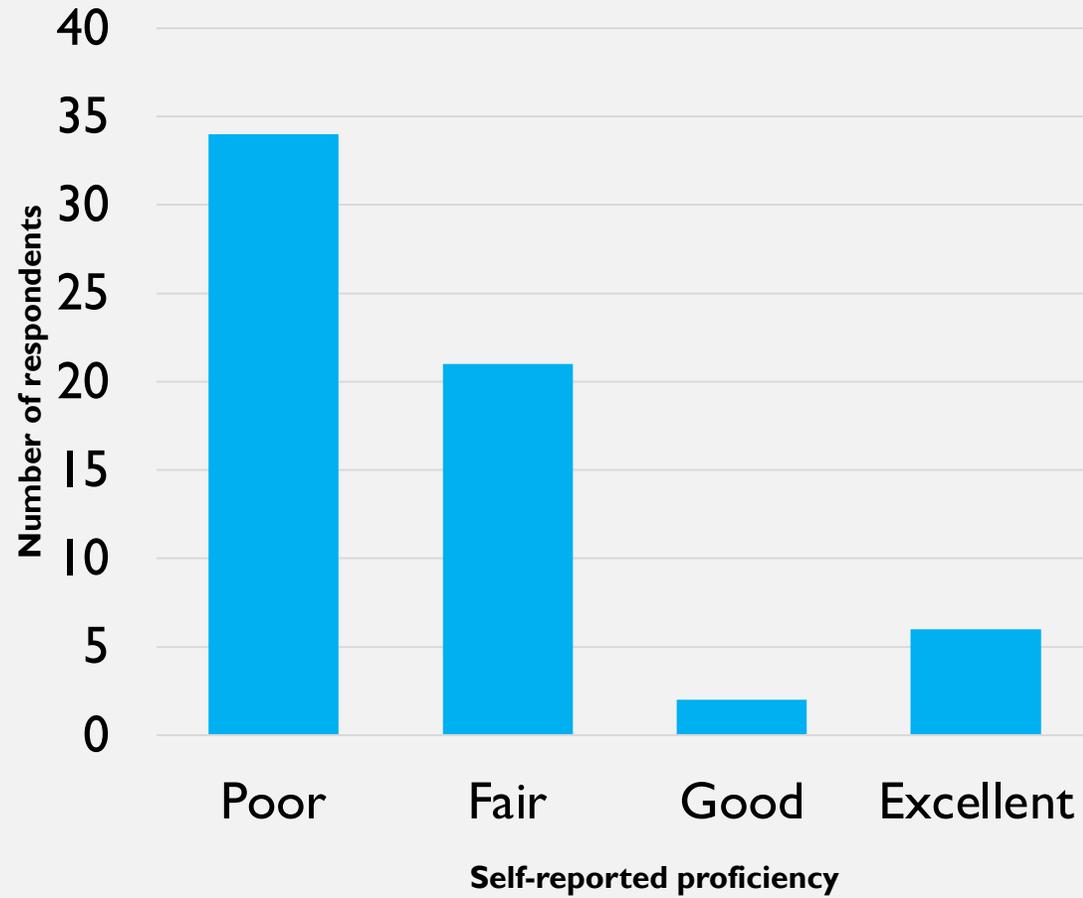
## SURVEY OF VA AUDIOLOGISTS RESULTS

- 63 respondents from 29 states
- **VA audiologists don't regularly see Spanish speaking patients**
- Uncomfortable administering/scoring tests in Spanish
- **Half of respondents don't have access to an interpreter service**

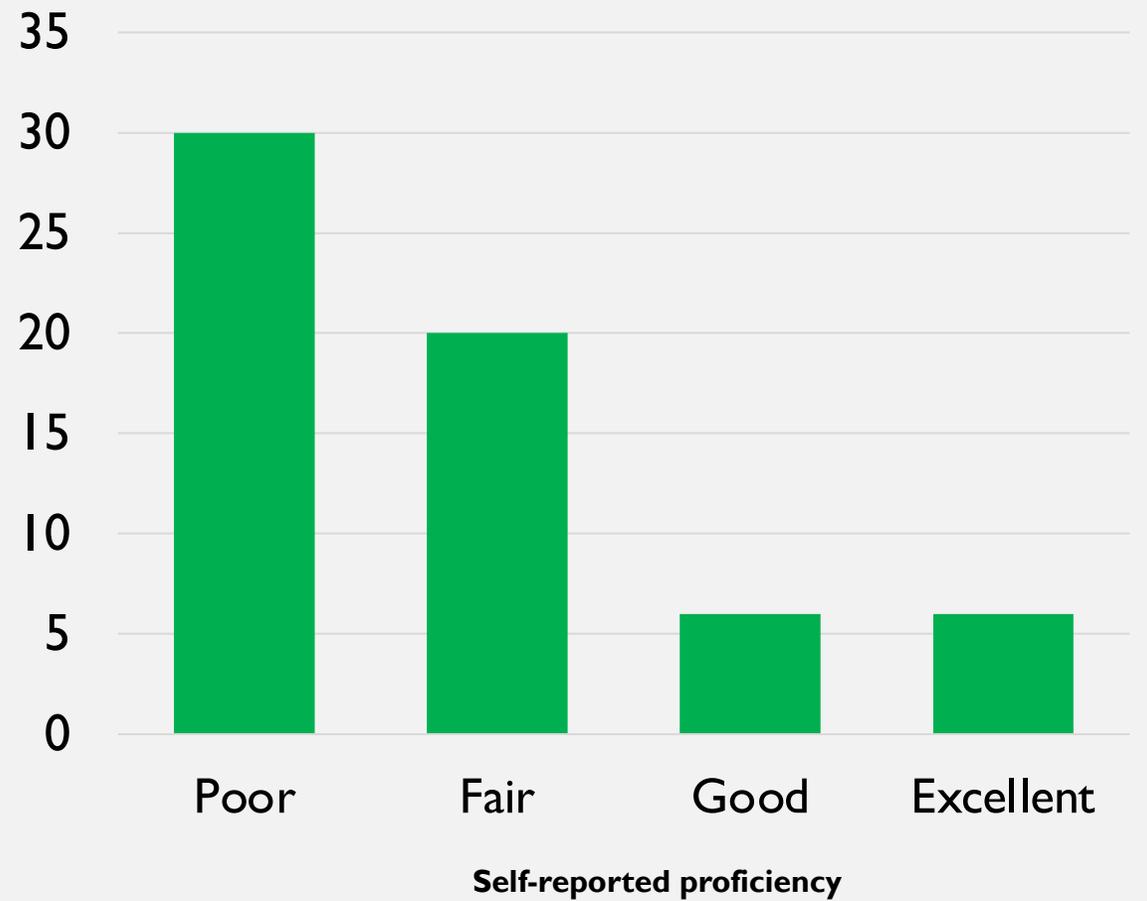
# MLV or Recorded?



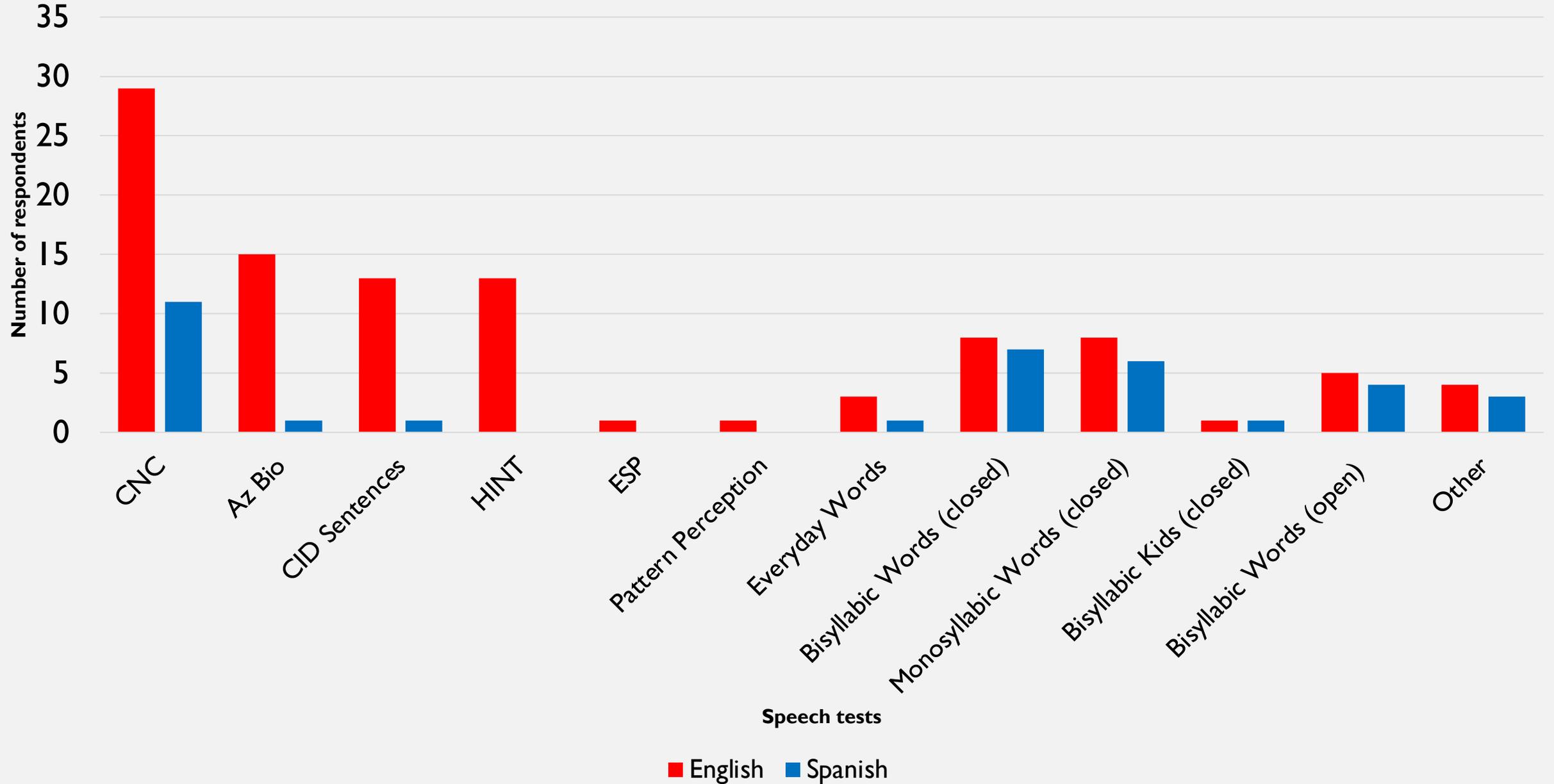
### Ability to SPEAK Spanish



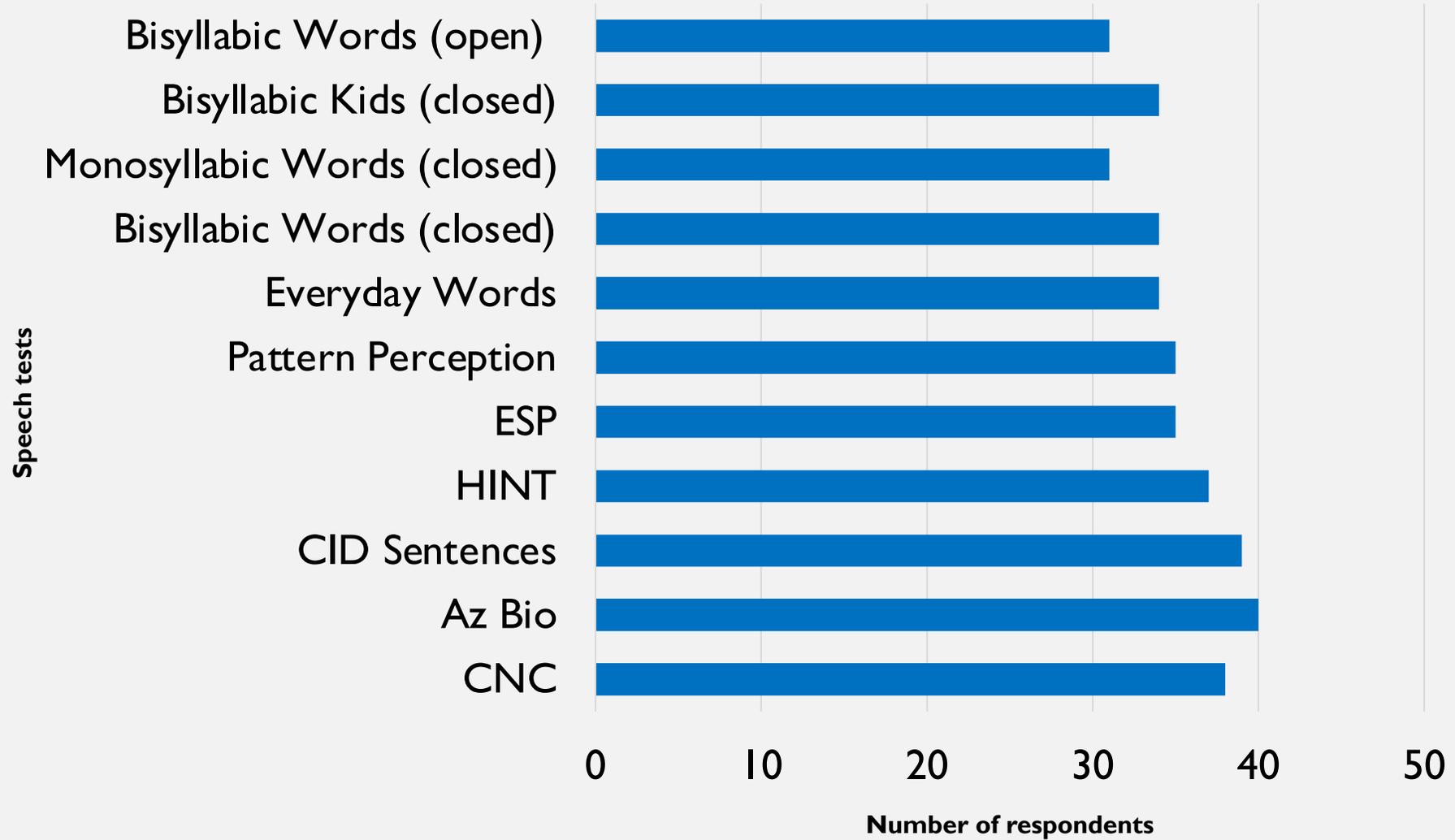
### Ability to UNDERSTAND Spanish



# Tests Used with bilingual patients



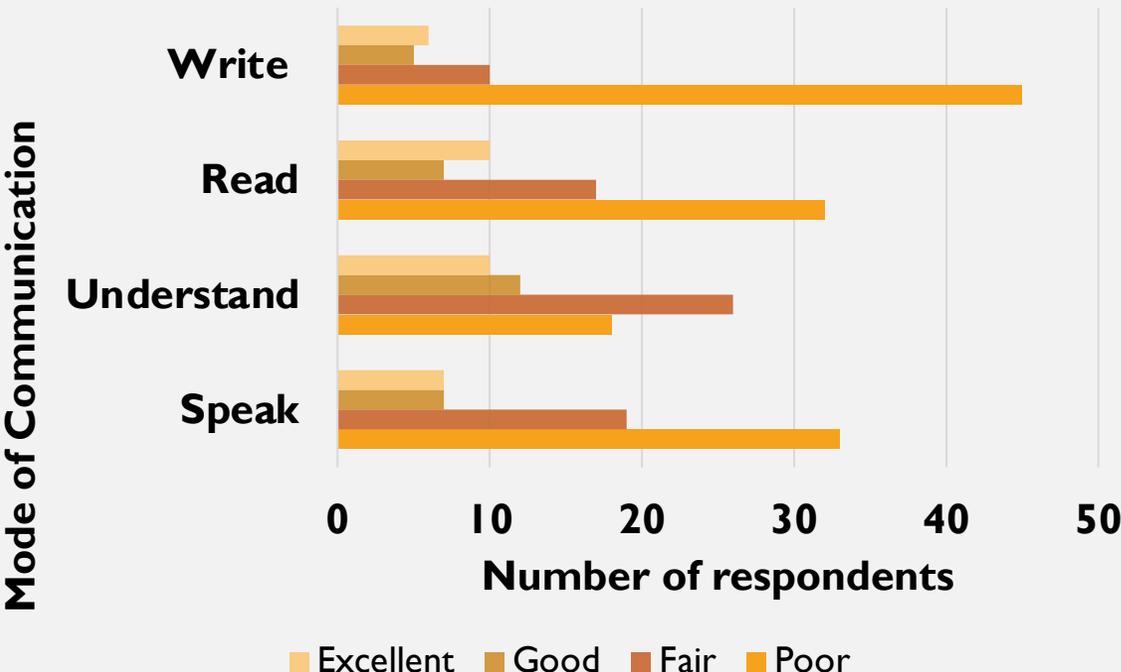
## No access to Spanish version



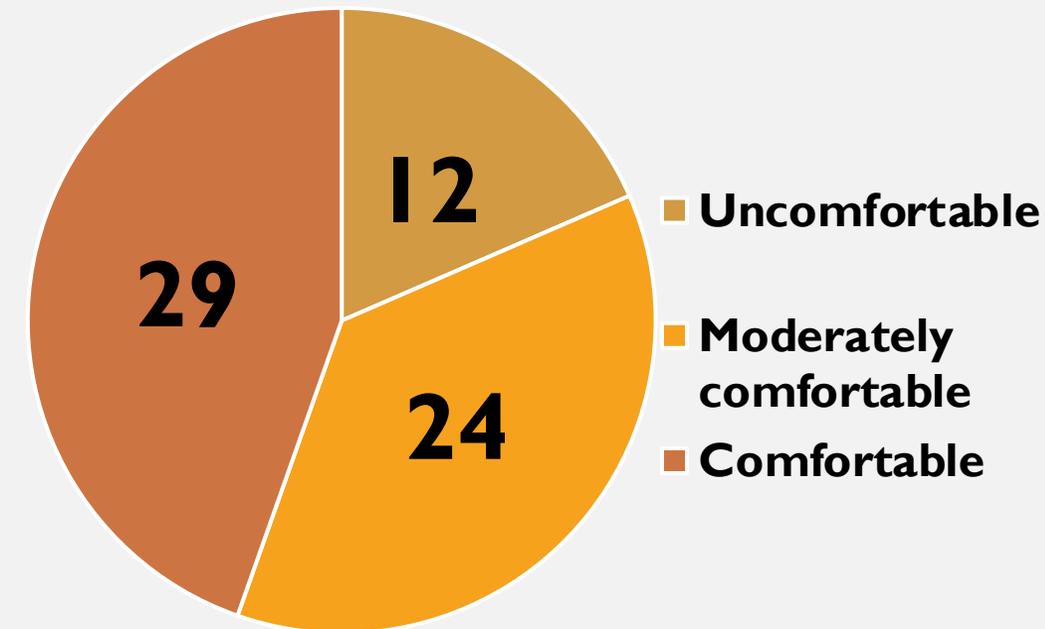
## SURVEY OF CLINICAL AUDIOLOGISTS

- 66 respondents from 19 different states
  - The majority were from Texas
- Two thirds of respondents see Spanish speakers regularly

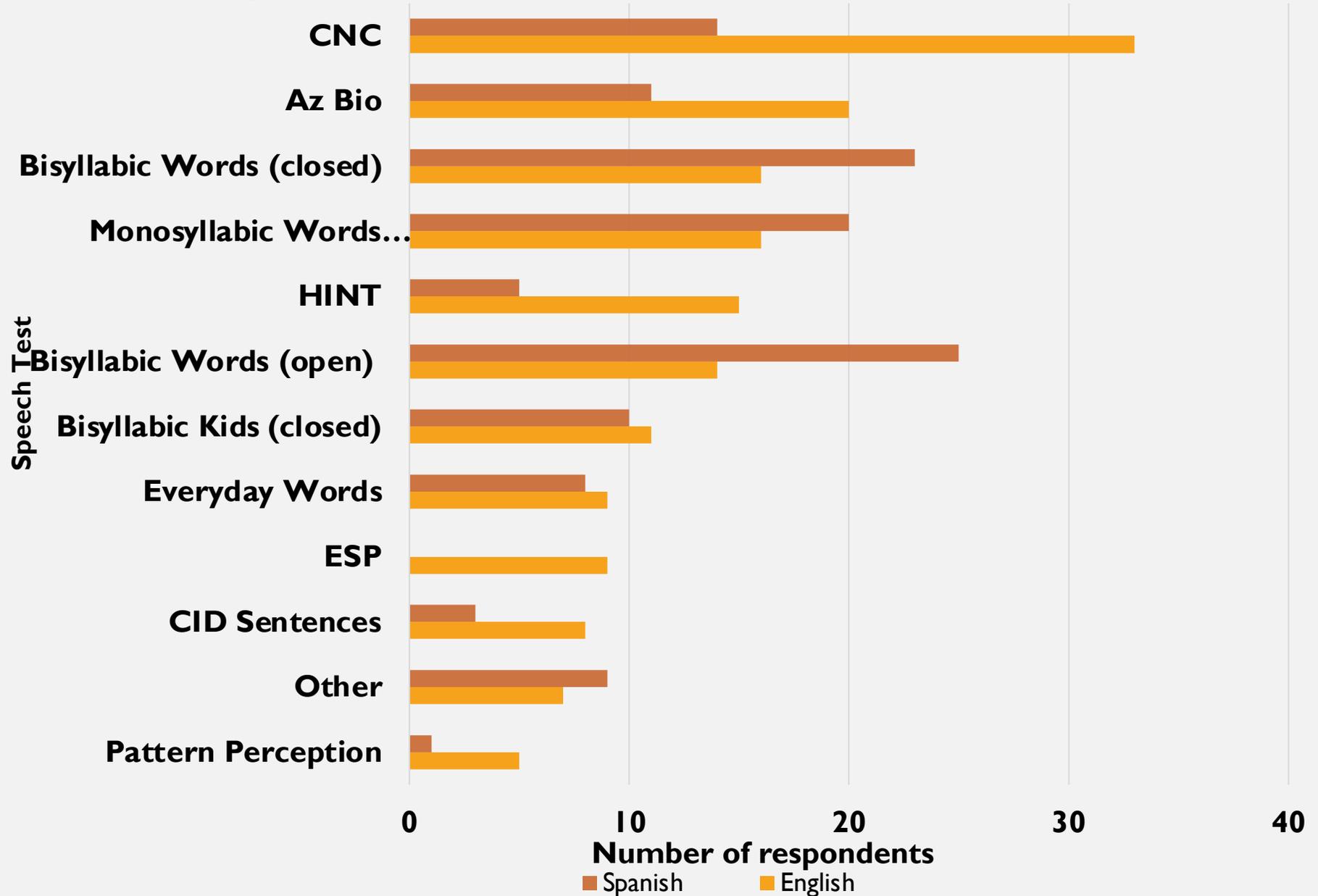
# Self-reported Spanish proficiency



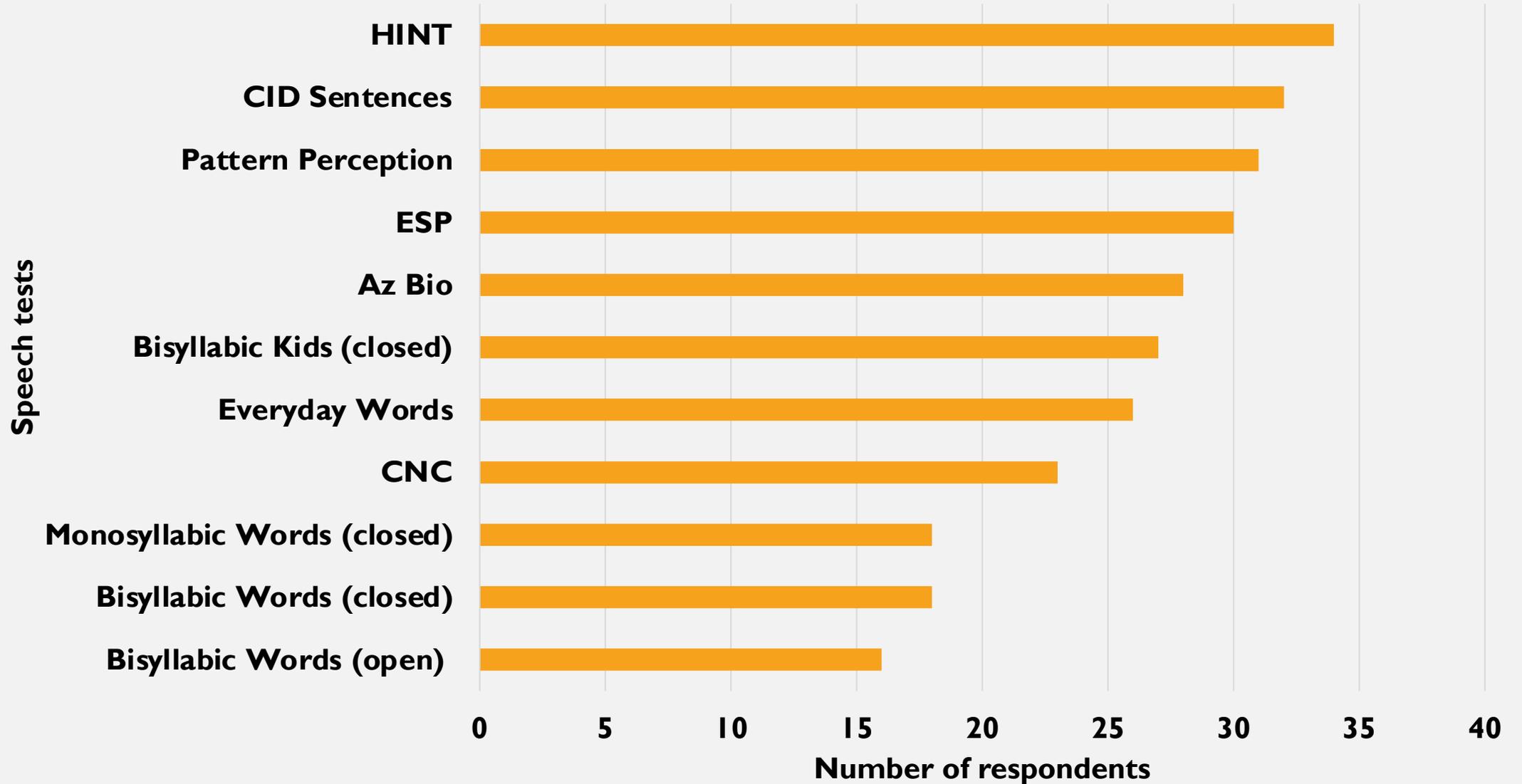
# Level of Comfort administering and scoring tests in Spanish



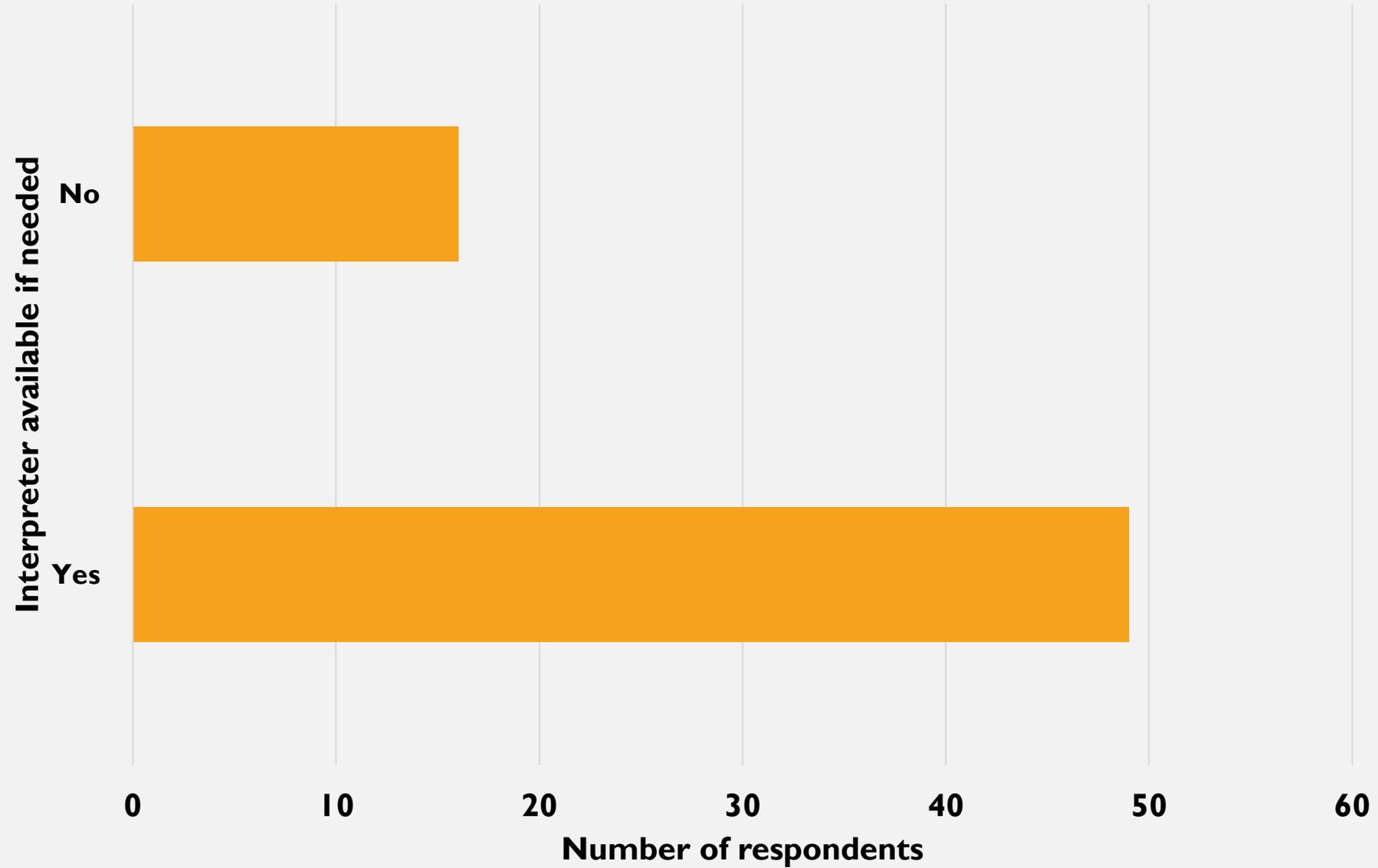
# Speech tests used for assessment



# No access to Spanish version



# Access to interpreter service



## DISCUSSION/ THEMES

- There are currently no widely accepted protocols for assessing bilingual patients and audiologists use a variety of different speech tests.
- Approximately a quarter of all respondents self-reported their ability to speak and understand Spanish as good or excellent but over half of all respondents indicated that they were comfortable administering and scoring tests in Spanish.
- Few audiologists can provide language concordant care to Spanish-speaking patients.



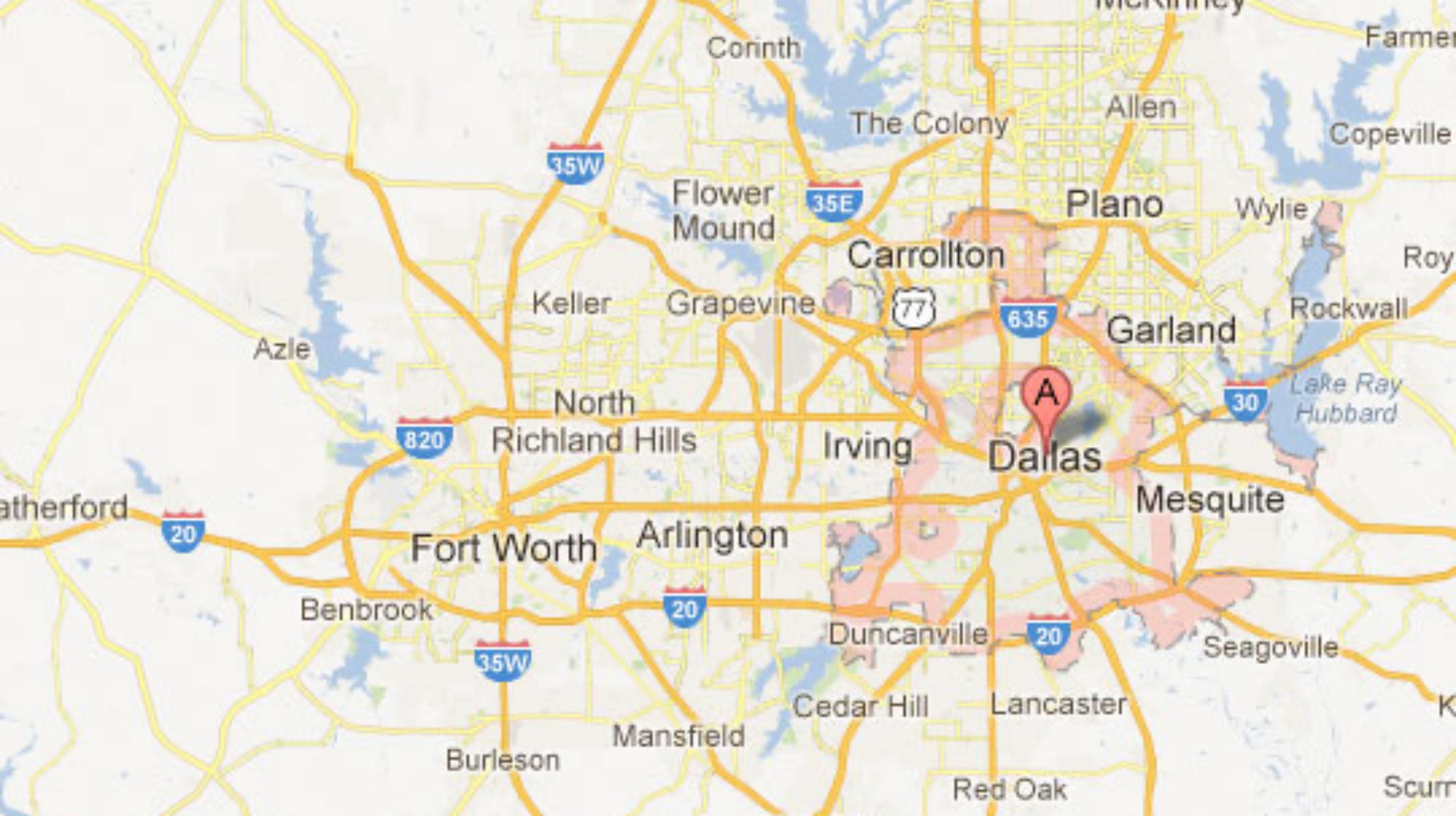
# ADDRESSING LANGUAGE DISCORDANT CARE

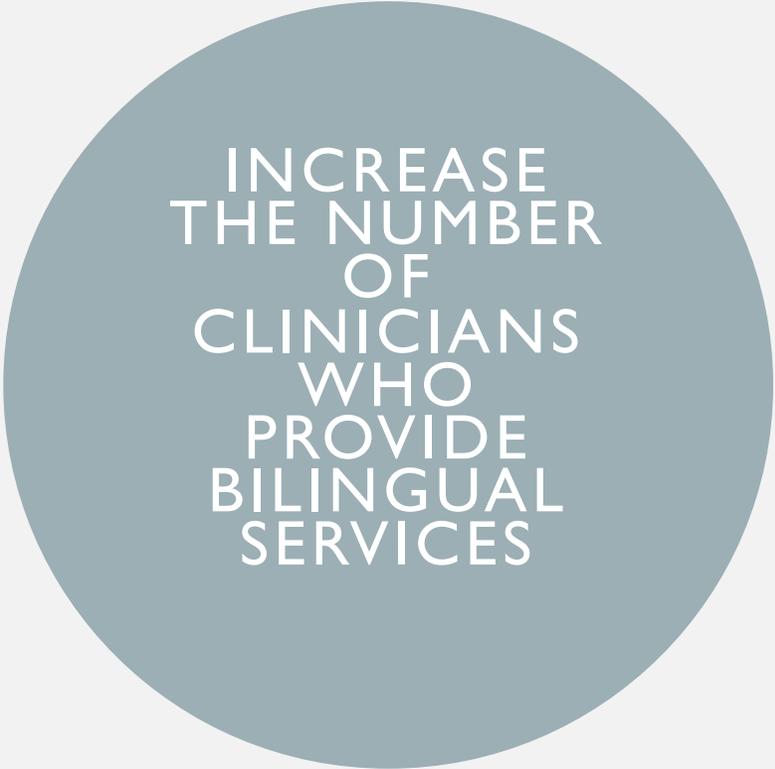


TRAINED MEDICAL INTERPRETERS

## THREE PROBLEMS TO SOLVE

- Lack of providers
- Lack of second language proficiency to be effective as a clinician
- Limited test materials





INCREASE  
THE NUMBER  
OF  
CLINICIANS  
WHO  
PROVIDE  
BILINGUAL  
SERVICES

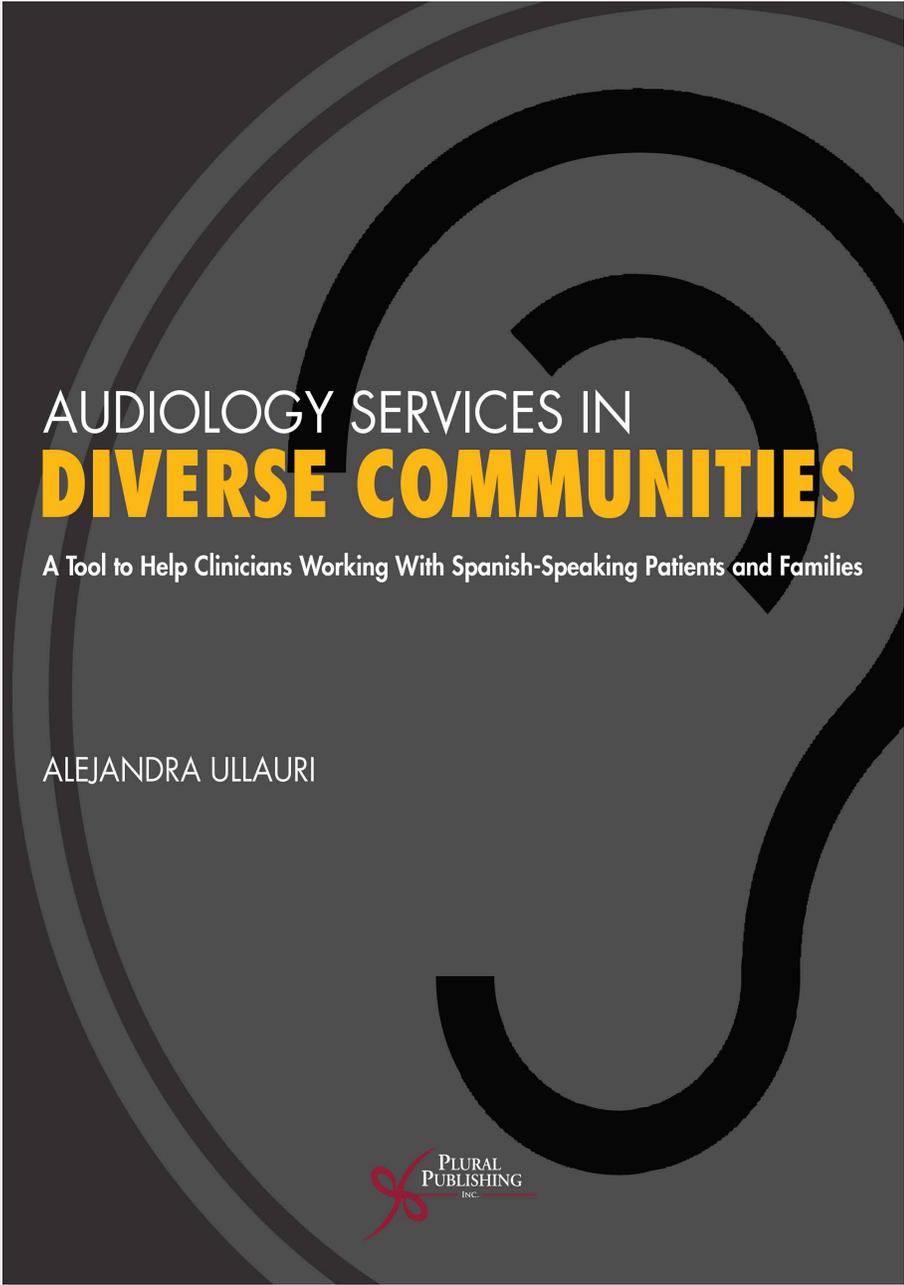
- 1:117,000 → 1:100,000
- Training for clinicians and students
- Ample clinical opportunities with bilingual patients

# ASSESS SECOND LANGUAGE PROFICIENCY

- Dual-role staff interpreter linguistic competency<sup>1</sup>
  - Oral and written exams
  - College level proficiency



I. Moreno, M. R., Otero-Sabogal, R., & Newman, J. (2007). Assessing dual-role staff-interpreter linguistic competency in an integrated healthcare system. *Journal of General Internal Medicine* : *JGIM*, 22(2), 331–335. <https://doi.org/10.1007/s11606-007-0344-8>



AUDIOLOGY SERVICES IN  
**DIVERSE COMMUNITIES**

A Tool to Help Clinicians Working With Spanish-Speaking Patients and Families

ALEJANDRA ULLAURI

 PLURAL  
PUBLISHING  
INC.

<https://www.audiologyenespanol.com/>

# COLLABORATION

- Partnerships with clinicians and researchers in Spanish speaking countries<sup>1</sup>
- Collaborate with researchers across the country

I. Munguia-Vazquez, R., & García-Enríquez, B. (2021). Cross-Cultural Collaboration in Medical Audiology. *The Hearing Journal*, 74(7), 32–. <https://doi.org/10.1097/01.HJ.0000766240.17497.11>

## CONCLUSIONS

- **The best care is language concordant care**
- 3 problems need to be addressed
  - No clear solutions
- Further research must be conducted
- Collaboration is needed

## WHAT'S NEXT?

- 3<sup>rd</sup> year AuD and 1<sup>st</sup> year PhD student
- Continuing to conduct research surrounding this topic
- Open to collaborating

## ACKNOWLEDGEMENTS

- Dr. Molis
- Dr. Lobarinas
- NCRAR



# QUESTIONS

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